IV. Screening Levels for Ammonia

The Central Valley Water Board finds the discharges covered by this General Order have reasonable potential for ammonia and effluent limitations are required. The screening levels in Tables C-4 and C-5A through C-5B shall be used to determine the appropriate effluent limitations for ammonia from Tables 15A through 16D of this General Order, which shall be specified in the Notice of Applicability.

A. Acute Criterion (CMC)

The Central Valley Water Board will determine the 1-hour criterion maximum concentration (CMC or acute criterion) based on the maximum permitted pH or on the maximum observed effluent pH, whichever is lower. The Central Valley Water Board will evaluate site-specific information to determine the presence or absence of salmonids in the receiving water, including the applicability of the cold freshwater habitat (COLD). If the Central Valley Water Board determines that salmonids are present or potentially present in the receiving water, the screening level shall be selected from the "Salmonids Present" column. If the Central Valley Water Board determines that the salmonids are not present in the receiving water, the screening level shall be selected from the "Salmonids Absent" column. See section V.A.1.c.iv of this General Order for the applicable effluent limitations for pH.

Table C-4. Screening Levels for Ammonia – Acute Criterion (CMC)

pH	CMC in mg/L Ammonia Nitrogen (as N)	
	Salmonids Present	Salmonids Absent
7.8	8.11	12.0
7.9	6.77	10.0
8.0	5.62	8.41
8.1	4.64	6.95
8.2	3.83	5.73
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.880	1.32

B. Chronic Criterion (CCC)

The Central Valley Water Board will determine the 30-day criterion continuous concentration (CCC or chronic criterion) based on downstream receiving water pH and temperature data. If at least monthly paired pH and temperature receiving water data are available, the CCC will be determined by selecting a CCC from Tables C-5A and C-5B for each day when paired data are available, calculating a rolling 30-day average CCC, and selecting the minimum observed 30-day CCC. If sufficient paired receiving water data are not available, the CCC will be selected from Tables C-5A and C-5B using the maximum observed pH and 30-day average temperature of the downstream receiving water.

Table C-5A. Screening Levels for Ammonia – Chronic Criterion (CCC)

	Temperature °C								
pH	**0**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
6.5	6.67	6.67	6.46	6.06	5.68	5.33	4.99	4.68	4.39
6.6	6.57	6.57	6.36	5.97	5.59	5.25	4.92	4.61	4.32
6.7	6.44	6.44	6.25	5.86	5.49	5.15	4.83	4.52	4.24
6.8	6.29	6.29	6.10	5.72	5.36	5.03	4.72	4.42	4.14
6.9	6.12	6.12	5.93	5.56	5.21	4.89	4.58	4.30	4.03
7.0	5.91	5.91	5.73	5.37	5.04	4.72	4.43	4.15	3.89
7.1	5.67	5.67	5.49	5.15	4.83	4.53	4.25	3.98	3.73
7.2	5.39	5.39	5.22	4.90	4.59	4.31	4.04	3.78	3.55
7.3	5.08	5.08	4.92	4.61	4.33	4.06	3.80	3.57	3.34
7.4	4.73	4.73	4.59	4.30	4.03	3.78	3.55	3.32	3.12
7.5	4.36	4.36	4.23	3.97	3.72	3.49	3.27	3.06	2.87
7.6	3.98	3.98	3.85	3.61	3.39	3.18	2.98	2.79	2.62
7.7	3.58	3.58	3.47	3.25	3.05	2.86	2.68	2.51	2.36
7.8	3.18	3.18	3.09	2.89	2.71	2.54	2.38	2.23	2.10
7.9	2.80	2.80	2.71	2.54	2.38	2.24	2.10	1.96	1.84
8.0	2.43	2.43	2.36	2.21	2.07	1.94	1.82	1.71	1.60
8.1	2.10	2.10	2.03	1.91	1.79	1.68	1.57	1.47	1.38
8.2	1.79	1.79	1.74	1.63	1.53	1.43	1.34	1.26	1.18
8.3	1.52	1.52	1.48	1.39	1.30	1.22	1.14	1.07	1.00
8.4	1.29	1.29	1.25	1.17	1.10	1.03	0.966	0.906	0.849
8.5	1.09	1.09	1.06	0.990	0.928	0.870	0.816	0.765	0.717
8.6	0.920	0.920	0.892	0.836	0.784	0.735	0.689	0.646	0.606
8.7	0.778	0.778	0.754	0.707	0.663	0.622	0.583	0.547	0.512
8.8	0.661	0.661	0.641	0.601	0.563	0.528	0.495	0.464	0.435
8.9	0.565	0.565	0.548	0.513	0.481	0.451	0.423	0.397	0.372
9.0	0.486	0.486	0.471	0.442	0.414	0.389	0.364	0.342	0.320

Table C-5B. Screening Levels for Ammonia – Chronic Criterion (CCC)

	Temperature °C								
pH	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
6.5	4.12	3.86	3.62	3.39	3.18	2.98	2.80	2.62	2.46
6.6	4.05	3.80	3.56	3.34	3.13	2.94	2.75	2.58	2.42
6.7	3.98	3.73	3.50	3.28	3.07	2.88	2.70	2.53	2.37
6.8	3.89	3.64	3.42	3.20	3.00	2.82	2.64	2.47	2.32
6.9	3.78	3.54	3.32	3.11	2.92	2.74	2.57	2.41	2.25
7.0	3.65	3.42	3.21	3.01	2.82	2.64	2.48	2.32	2.18
7.1	3.50	3.28	3.08	2.88	2.70	2.53	2.38	2.23	2.09
7.2	3.33	3.12	2.92	2.74	2.57	2.41	2.26	2.12	1.99
7.3	3.13	2.94	2.76	2.58	2.42	2.27	2.13	2.00	1.87
7.4	2.92	2.74	2.57	2.41	2.26	2.12	1.98	1.86	1.74
7.5	2.69	2.53	2.37	2.22	2.08	1.95	1.83	1.72	1.61
7.6	2.45	2.30	2.16	2.02	1.90	1.78	1.67	1.56	1.47
7.7	2.21	2.07	1.94	1.82	1.71	1.60	1.50	1.41	1.32
7.8	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
7.9	1.73	1.62	1.52	1.42	1.33	1.25	1.17	1.10	1.03
8.0	1.50	1.41	1.32	1.24	1.16	1.09	1.02	0.957	0.897
8.1	1.29	1.21	1.14	1.07	1.00	0.938	0.879	0.824	0.773
8.2	1.11	1.04	0.973	0.912	0.855	0.802	0.752	0.705	0.661
8.3	0.941	0.882	0.827	0.775	0.727	0.682	0.639	0.599	0.562
8.4	0.796	0.747	0.700	0.656	0.615	0.577	0.541	0.507	0.475
8.5	0.672	0.630	0.591	0.554	0.520	0.487	0.457	0.428	0.401
8.6	0.568	0.532	0.499	0.468	0.439	0.411	0.386	0.362	0.339
8.7	0.480	0.450	0.422	0.396	0.371	0.348	0.326	0.306	0.287
8.8	0.408	0.383	0.359	0.336	0.315	0.296	0.277	0.260	0.244
8.9	0.349	0.327	0.306	0.287	0.269	0.253	0.237	0.222	0.208
9.0	0.300	0.281	0.264	0.247	0.232	0.217	0.204	0.191	0.179

V. Screening Levels for Site-Specific Water Bodies

The Central Valley Water Board will also conduct an RPA for any constituent with site-specific water quality objectives applicable to the receiving water body listed in the Basin Plans, as follows:

A. Basin Plan for the Sacramento and San Joaquin River Basins

1. Table III-1: Trace Element Water Quality Objectives
2. Table III-2A: Specific Pesticide Objectives
3. Table III-3: Electrical Conductivity and Total Dissolved Solids

B. Basin Plan for the Tulare Lake Basin

1. Table III-2: Maximum Electrical Conductivity Levels
2. Table III-3: Electrical Conductivity Objectives at Selected Streamflow Stations

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Central Valley Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, § 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, § 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions
   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Central Valley Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
   c. The Discharger submitted notice to the Central Valley Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Central Valley Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Valley Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

   b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).) For purposes of this Order, the Discharger shall apply by submitting a Notice of

Intent for coverage under the relevant renewed General Order or apply for and obtain an individual permit.

C. Transfers

Notices of Applicability under this Order are not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may require modification or revocation and reissuance of the Notice of Applicability to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when the method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter, or when:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and:
    a. The method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter, or;
    b. The method ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. § 122.21(e)(3); 122.41(j)(4); 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Valley Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Central Valley Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Central Valley Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Valley Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications (including Notices of Intent), reports, or information submitted to the Central Valley Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)
2. All permit applications shall be signed in accordance with the following:
    a. For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)
    b. For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

c. For a municipality, state, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this Order and other information requested by the Central Valley Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

   c. The written authorization is submitted to the Central Valley Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Central Valley Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Valley Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required

for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Valley Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

   As of 21 December 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically to the initial recipient (State Water Board) defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3. The Central Valley Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

F. Planned Changes

The Discharger shall give notice to the Central Valley Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged (if the discharge is not an existing manufacturing, commercial, mining, or silvicultural discharge). This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

   The alteration or addition could significantly change the nature or increase the quantity of

pollutants discharged (if the discharge is an existing manufacturing, commercial, mining, or silvicultural discharge). This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Central Valley Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Central Valley Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Valley Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the appropriate initial recipient, as determined by U.S. EPA, and as defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Central Valley Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTW's)

All POTW's shall provide adequate notice to the Central Valley Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2).)
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.

B. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.

C. Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory certified for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW; formerly the Department of Public Health). Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event a certified laboratory is not available to the Discharger for any onsite field measurements such as pH, dissolved oxygen, turbidity, temperature, and residual chlorine, such analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any onsite field measurements such as pH, dissolved oxygen, turbidity, temperature, and residual chlorine must be kept onsite in the treatment facility laboratory and shall be available for inspection by Central Valley Water Board staff. The Discharger must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.

D. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

F. Laboratories analyzing monitoring samples shall be certified by DDW, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

G. Major Dischargers shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Resources Control Board at the following address:

State Water Resources Control Board Quality Assurance Program Officer
Office of Information Management and Analysis
State Water Resources Control Board
1001 I Street, Sacramento, CA 95814

H. The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this Monitoring and Reporting Program.

I. The results of all monitoring required by this Order shall be reported to the Central Valley Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

J. Some facilities may have multiple discharge points, ponds, receiving waters, or other monitoring locations. Site-specific monitoring requirements will be included in the Notice of Applicability. Dischargers with multiple discharge points will have additional monitoring locations and requirements that will be specified in the Notice of Applicability.

II. MONITORING LOCATIONS

Each Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this General Order as applicable. The Executive Officer may specify in the Notice of Applicability additional discharge points and/or monitoring locations than those listed in Table E-1.

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	A location where a representative sample of the Facility influent can be obtained prior to any additives, treatment processes, and plant return flows.[5]
001[1,2]	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to surface water.
--	RSW-001	The receiving water, upstream of the discharge point, as defined in the Notice of Applicability.
--	RSW-002	The receiving water, downstream of the discharge point, as defined in the Notice of Applicability.
--	PND-001	A location where a representative sample from equalization, storage, and treatment ponds can be obtained.
--	BIO-001	A location where a representative sample of the biosolids can be obtained.
--	FIL-001[3]	A location where a representative sample of the influent to the filtration system can be obtained.
--	FIL-002[3]	A location where a representative sample of the effluent from the filtration system can be obtained.
--	UVS-001[4]	A location where a representative sample of wastewater can be collected upstream or downstream of the ultraviolet light (UV) disinfection system.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	SPL-001	A location where a representative sample of the municipal supply water can be obtained. If this is impractical, water quality data provided by the water supplier(s) may be used.

1 Dischargers enrolled under this General Order for more than one discharge point must comply with effluent limitations and monitoring requirements at each discharge point.
2 Additional discharge points may be added following the naming conventions used in Table E-1, above.
3 Applicable only to Dischargers of tertiary treated wastewater that meet the eligibility criteria in section I.B.4 of this General Order.
4 Only required for Dischargers utilizing UV disinfection systems.
5 For the City of Placerville, monitoring location INF-001 is located at the composite sampler after the grit chamber and before the Parshall flume.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. Each Discharger shall monitor influent to the Facility at Monitoring Location INF-001 as specified in the Notice of Applicability. The Executive Officer may specify in the Notice of Applicability alternate sample types and/or monitoring frequencies than those listed in Table E-2 below.

Table E-2. Influent Monitoring

Parameter	Units	Sample Type[3]	Sampling Frequency[3]		Required Analytical Test Method
			Major Discharger	Minor Discharger	
Flow	MGD	Meter	Continuous	Continuous	--
Conventional Pollutants					
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite[1]	1/Week	2/Month	[2]
Total Suspended Solids	mg/L	24-hr Composite[1]	1/Week	2/Month	[2]

1 24-hour flow proportional composite.
2 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; or by methods approved by the Central Valley Water Board or the State Water Board.
3 Required sample type and frequency unless otherwise specified in the Notice of Applicability.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. Each Discharger shall monitor treated domestic wastewater at Monitoring Location EFF-001 (see also General Monitoring Provision J) for the applicable constituents identified in the Notice of Applicability. Not all Dischargers enrolled under this General Order will be required to monitor all the constituents listed in Table E-3. The specific monitoring requirements for a Discharger enrolled under this General Order will be contained in the Discharger's Notice of Applicability. The Executive Officer may specify in the Notice of Applicability alternate sample types and/or more frequent monitoring frequencies than those listed in Table E-3 below. If there was no discharge to receiving water during the designated monitoring period, monitoring is not required for that period. If there was no discharge, the Discharger shall so state in the monthly SMR. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type[1]	Sampling Frequency[1]		Required Analytical Test Method
			Major Discharger	Minor Discharger	
Flow	MGD	Meter	Continuous	Continuous	--
Conventional Pollutants					
Biochemical Oxygen Demand (5-day @ 20° C)	mg/L	24-hr Composite[2]	1/Week	1/Week	3
	lbs/day	Calculate	1/Week	1/Week	--
pH	standard units	Grab[4]	1/Week[5,6]	1/Week[5,6]	3
Total Suspended Solids	mg/L	24-hr Composite[2]	1/Week	1/Week	3
	lbs/day	Calculate	1/Week	1/Week	--
Priority Pollutants					
Arsenic, Total Recoverable	µg/L	Grab[4]	1/Month	7	3,8
Alpha-BHC	µg/L	Grab[4]	1/Month	7	3,8
Beta Endosulfan	µg/L	Grab[4]	1/Month	7	3,8
Bis (2-ethylhexyl) Phthalate	µg/L	Grab[4]	1/Quarter	7	3,8,9
Dichlorobromomethane	µg/L	Grab[4]	1/Month	1/Month	3,8
Chloroform	µg/L	Grab[4]	1/Month	7	3,8
Copper, Total Recoverable	µg/L	Grab[4]	1/Quarter	1/Quarter	3,8
Cyanide, Total (as CN)	mg/L	Grab[4]	1/Month	7	3,8
Dibromochloromethane	µg/L	Grab[4]	1/Month	7	3,8
Endrin Aldehyde	µg/L	Grab[4]	1/Month	7	3,8
Heptachlor	µg/L	Grab[4]	1/Month	7	3,8
Heptachlor Epoxide	µg/L	Grab[4]	1/Month	7	3,8
Lead, Total Recoverable	µg/L	Grab[4]	1/Quarter	1/Quarter	3,8
Mercury, Total Recoverable	ng/L	Grab[4]	1/Year	1/Year	3,8,10
Selenium, Total Recoverable	µg/L	Grab[4]	1/Quarter	7	3,8
Tetrachloroethylene	µg/L	Grab[4]	1/Month	7	3,8
Zinc, Total Recoverable	µg/L	Grab[4]	1/Quarter	1/Quarter	3,8
Non-Conventional Pollutants					
Aluminum, Total Recoverable	µg/L	Grab[4]	1/Month	1/Month	3
Ammonia Nitrogen, Total (as N)	mg/L	Grab[4]	1/Month[5,11]	1/Month[5,11]	3
	lbs/day	Calculate	1/Month	1/Month	--
Boron, Total Recoverable	mg/L	Grab[4]	1/Month	7	3
Chloride	mg/L	Grab[4]	1/Month	7	3
Chlorine, Total Residual[12]	mg/L	Meter	Continuous	Continuous	3,13
Chlorine, Total Residual	mg/L	Grab[4]	1/Day[14]	1/Day[14]	3,13
Chlorpyrifos	µg/L	Grab[4]	1/Year	1/Year	3,15
Diazinon	µg/L	Grab[4]	1/Year	1/Year	3,15
Dissolved Oxygen	mg/L	Grab[4]	2/Month	2/Month	3
Electrical Conductivity @ 25°C	µmhos/cm	Grab[4]	1/Quarter	1/Quarter	3

Parameter	Units	Sample Type[1]	Sampling Frequency[1]		Required Analytical Test Method
			Major Discharger	Minor Discharger	
Fluoride, Total	mg/L	Grab[4]	1/Month	[7]	[3]
Foaming Agents (MBAS)	mg/L	Grab[4]	1/Month	[7]	[3]
Hardness, Total (as $CaCO_3$)	mg/L	Grab[4]	1/Quarter[16]	1/Quarter[16]	[3]
Manganese, Total Recoverable	µg/L	Grab[4]	1/Month	1/Month	[3]
Methylmercury	µg/L	Grab[4]	1/Month	[7]	[3,10]
Nitrate Plus Nitrite (as N)	mg/L	Grab[4]	1/Month	1/Month	[3]
Nitrate Nitrogen, Total (as N)	mg/L	Grab[4]	1/Month	1/Month	[3]
Nitrite Nitrogen, Total (as N)	mg/L	Grab[4]	1/Month	1/Month	[3]
Nitrogen, Total (as N)	mg/L	Grab[4]	1/Week	[7]	[3]
Peracetic Acid	mg/L	Meter or Grab[4]	1/Day[17]	1/Day[17]	[3]
Phosphorus	mg/L	Grab[4]	[7]	2/Month	[3]
Temperature	°C	Grab[4]	1/Week[5,6]	1/Week[5,6]	[3]
Total Coliform Organisms	MPN/100 mL	Grab[4]	1/Week[18]	1/Week[18]	[3]
Total Dissolved Solids	mg/L	Grab[4]	1/Month	1/Quarter	[3]

1 Required sample type and frequency unless otherwise specified in the Notice of Applicability.

2 24-hour flow proportional composite.

3 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

4 A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

5 pH and temperature shall be recorded at the time of ammonia sample collection.

6 A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

7 If monitoring is required, then the monitoring frequency shall be specified in the Notice of Applicability from the Executive Officer.

8 For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (See Attachment E, section IX.F).

9 In order to verify if bis (2-ethylhexyl) phthalate is truly present in the effluent discharge, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

10 Unfiltered methylmercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a reporting limit of 0.05 ng/L for methylmercury and 0.5 ng/L for total mercury.

11 Concurrent with whole effluent toxicity monitoring

12 Applicable to Dischargers utilizing chlorine disinfection systems.

13 Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.01 mg/L.

14 Chlorine residual monitoring is required at a minimum of once per day on each day chlorine is used to maintain treatment process equipment. In addition, the Discharger shall monitor chlorine residual for three consecutive days after each day chlorine is used to maintain treatment process equipment. Monitoring is

Parameter	Units	Sample Type[1]	Sampling Frequency[1]		Required Analytical Test Method
			Major Discharger	Minor Discharger	

not required for the use of chlorinated potable water for filter backwashing. When chlorine or chlorine-containing products are not used to maintain treatment process equipment, the Discharger shall so state in the monthly self-monitoring report. After a calendar year following the effective date of the permit, total chlorine residual data will be reviewed to determine if continued monitoring is warranted. The Discharger may discontinue chlorine monitoring once a calendar year of non-detects is established.

15 Chlorpyrifos and diazinon shall be sampled using U.S. EPA Method 625M, Method 8141, or equivalent GC/MS method.

16 Hardness samples shall be collected concurrently with metals samples.

17 Peracetic acid residual monitoring is only required when peracetic acid is used in the disinfection process.

18 Samples for total coliform organisms may be collected at any point following disinfection.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. Each Discharger shall conduct acute toxicity testing to determine whether the effluent is contributing acute toxicity to the receiving water. Each Discharger shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* – Major and minor Dischargers shall perform annual acute toxicity testing, concurrent with effluent ammonia sampling. The Executive Officer may specify alternate monitoring frequencies in the Notice of Applicability.

2. *Sample Types* – Each Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be flow proportional 24-hour composites or grab samples, as specified in the Notice of Applicability, and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001.

3. *Test Species* – The test species shall be fathead minnows (*Pimephales promelas*) or rainbow trout (*Oncorhynchus mykiss*), as specified in the Notice of Applicability.

4. *Test Duration* – Test duration shall be 96 hours.

5. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.

6. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.

B. Chronic Toxicity Testing. Each Discharger shall conduct chronic toxicity testing to determine whether the effluent is contributing chronic toxicity to the receiving water. The Discharger shall meet the following chronic toxicity testing requirements:

1. *Monitoring Frequency* – Major Dischargers shall perform chronic toxicity testing during quarters in which there is a discharge to receiving water. Minor Dischargers shall perform quarterly chronic toxicity testing for the first four quarters after the effective date of the Notice of Applicability and annually thereafter. The Executive Officer may specify more frequent monitoring in the Notice of Applicability. If the result of the routine chronic toxicity testing event exhibits toxicity, demonstrated by the result greater than 1.3 TUc (as $100/EC_{25}$) AND a percent effect greater than 25 percent at 100 percent effluent, the Discharger has the option of conducting two additional compliance monitoring chronic

toxicity testing events in order to calculate a median. The optional compliance monitoring events shall occur at least one week apart, and the final monitoring event shall be initiated no later than 6 weeks from the routine monitoring event that exhibited toxicity.

2. *Sample Types* – Effluent samples shall be flow proportional 24-hour composites or grab samples, as specified in the Notice of Applicability, and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001 and/or additional effluent monitoring locations specified in the Notice of Applicability. The receiving water control shall be a grab sample obtained from the respective upstream receiving water sampling location for each effluent discharge point (Monitoring Location RSW-001 or respective upstream receiving water sampling location), as identified in this Monitoring and Reporting Program.

3. *Sample Volumes* – Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.

4. *Test Species* – Chronic toxicity testing measures sublethal (e.g., reduced growth, reproduction) and/or lethal effects to test organisms exposed to an effluent compared to that of the control organisms. The Discharger shall conduct chronic toxicity tests with one of the following species that is the most sensitive:

   a. The cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test);

   b. The fathead minnow, *Pimephales promelas* (larval survival and growth test); and

   c. The green alga, *Selenastrum capricornutum* (growth test).

5. *Most Sensitive Species Determination* – The Discharger shall determine the most sensitive species of the three test species specified above. The species demonstrating the highest percent effect at the instream waste concentration from the first four quarterly monitoring events will be considered the most sensitive species and shall be used for chronic toxicity testing for the reminder of the permit term, except where documented issues with the sample analysis or related to the sample analysis prevent a clear selection of the most sensitive species. A Discharger may use the four most recent tests conducted prior to receiving a Notice of Applicability for use in determining the most sensitive species, if the tests were conducted in a manner consistent sufficient to make such determination. The Discharger shall request Executive Officer approval of the most sensitive species determination after conducting the four sets of quarterly chronic toxicity monitoring events. If the Executive Officer approval has not been received, all three species must be tested as described in section V.B.1 Monitoring Frequency above until Executive Officer approval is granted.

6. *Methods* – The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002.

7. *Reference Toxicant* – As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.

8. *Dilutions* –The chronic toxicity testing shall be performed using the dilution series identified in Table E-4, below, unless an alternative dilution series is detailed in the submitted Toxicity Reduction Evaluation (TRE) Action Plan. A receiving water control or laboratory water control may be used as the diluent.

Table E-4. Chronic Toxicity Testing Dilution Series

Sample	Dilutions[a] (%)					Control
	100	75	50	25	12.5	
% Effluent	100	75	50	25	12.5	0
% Control Water	0	25	50	75	87.5	100

[a] Receiving water control or laboratory water control may be used as the diluent.

9. *Test Failure* – Each Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days after receiving notification of a test failure. A test failure is defined as follows:

   a. The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002 (Method Manual), and its subsequent amendments or revisions; or

   b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in Table 6 on page 52 of the Method Manual. (A retest is only required in this case if the test results do not exceed the monitoring trigger specified in the Special Provision at section VII.C.2.a.iii of the Order.)

C. **WET Testing Notification Requirements.** Each Discharger shall notify the Central Valley Water Board within 24-hours after the receipt of test results exceeding the monitoring trigger during regular monitoring, or an exceedance of the acute toxicity effluent limitation.

D. **WET Testing Reporting Requirements.** All toxicity test reports shall include the contracting laboratory's complete report provided to the Discharger and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the method manuals. At a minimum, whole effluent toxicity monitoring shall be reported as follows:

1. **Chronic WET Reporting.** Chronic toxicity monitoring results shall be reported to the Central Valley Water Board with the quarterly self-monitoring report, and shall contain, at minimum:

   a. The results expressed in TUc, measured as 100/NOEC, and also measured as 100/LC50, 100/EC25, 100/IC25, and 100/IC50, as appropriate.

   b. The percent effect at the instream waste concentration;

   c. The statistical methods used to calculate endpoints;

   d. The statistical output page, which includes the calculation of the percent minimum significant difference (PMSD);

   e. The dates of sample collection and initiation of each toxicity test; and

   f. The results compared to the numeric toxicity monitoring trigger or effluent limitation.

   Additionally, the quarterly self-monitoring report (SMR) shall contain an updated chronology of chronic toxicity test results expressed in TUc and percent effect at the

instream waste concentration, and organized by test species, type of test (survival, growth or reproduction), and monitoring frequency, i.e., either quarterly, monthly, monthly median, or TRE.

2. **Acute WET Reporting.** Acute toxicity test results shall be submitted with the quarterly SMR and reported as percent survival.

3. **TRE or Toxicity Evaluation Study Reporting.** Reports for TREs or a Toxicity Evaluation Study shall be submitted in accordance with the schedule contained in the Discharger's approved TRE Workplan, or as amended by the Discharger's TRE Action Plan.

4. **Quality Assurance (QA).** Each Discharger must provide the following information for QA purposes:

   a. Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.

   b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.

   c. Any information on deviations or problems encountered and how they were dealt with.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001 and RSW-002

Each Discharger shall implement the Receiving Water Monitoring Requirements in Attachment E, section VIII.A of this Order. However, in lieu of conducting the individual monitoring specified in Attachment E, section VIII.A of this Order (including visual observations) Dischargers located within the legal boundaries of the Sacramento–San Joaquin River Delta may elect to participate in the Delta Regional Monitoring Program[1]. Dischargers may choose to conduct all or part of the receiving water monitoring through the Delta Regional Monitoring Program. If a Discharger elects to cease all or part of the individual receiving water monitoring and instead participates in the Delta Regional Monitoring Program, the Discharger shall submit a letter signed by an authorized representative informing the Board that the Discharger will participate in the Delta Regional Monitoring Program, and the date on which individual receiving water monitoring required under Attachment E, section VIII.A will cease, or be modified, and specific monitoring locations and constituent combinations that will no longer be conducted individually. Written approval of the Discharger's request, by the Executive Officer, is required prior to discontinuing part or all of individual receiving water monitoring. Approval by the Executive Officer is not required prior to participating in the Delta Regional Monitoring Program.

If a Discharger participates in the Delta Regional Monitoring Program in lieu of conducting individual receiving water monitoring, the Discharger shall continue to participate in the Delta

[1] If a Discharger elects to participate in the Delta Regional Monitoring Program, it shall continue to submit receiving water data for temperature. At a minimum, the results from one representative upstream receiving water temperature sample shall be submitted annually for the month of January. The temperature data shall be submitted in the January self-monitoring report and will be used to determine compliance with the temperature effluent limitation. Temperature data may be collected by the Discharger for this purpose or the Discharger may submit representative temperature data from the Delta Regional Monitoring Program or other appropriate monitoring programs (e.g., Department of Water Resources, United States Geological Survey).

Regional Monitoring Program until such time as the Discharger informs the Board that participation in the Delta Regional Monitoring Program will cease and individual monitoring is reinstituted. Receiving water monitoring under Attachment E, section VIII.A, is not required under this Order so long as the Discharger adequately supports the Delta Regional Monitoring Program. If the Discharger fails to adequately support the Delta Regional Monitoring Program, as defined by the Delta Regional Monitoring Program Steering Committee, the Discharger shall reinstitute individual receiving water monitoring under Attachment E, section VIII.A, upon written notice from the Executive Officer. During participation in the Delta Regional Monitoring Program, the Discharger may conduct and submit any or part of the receiving water monitoring included in this Monitoring and Reporting Program that is deemed appropriate by the Discharger.

Delta Regional Monitoring Program data are not intended to be used directly to represent either upstream or downstream water quality for purposes of determining compliance with this Permit. Delta Regional Monitoring Program monitoring stations are established generally as "integrator sites" to evaluate the combined impacts on water quality of multiple discharges into the Delta; Delta Regional Monitoring Program monitoring stations would not normally be able to identify the source of any specific constituent, but would be used to identify water quality issues needing further evaluation. Delta Regional Monitoring Program monitoring data, along with individual Discharger data, may be used to help establish background receiving water quality for reasonable potential analyses in an NPDES permit after evaluation of the applicability of the data for that purpose. Delta Regional Monitoring Program data, as with all environmental monitoring data, can provide an assessment of water quality at a specific place and time that can be used in conjunction with other information, such as other receiving water monitoring data, spatial and temporal distribution and trends of receiving water data, effluent data from the Discharger's discharge and other point and non-point source discharges, receiving water flow volume, speed and direction, and other information to determine the likely source or sources of a constituent that resulted in exceedance of a receiving water quality objective.

During the period of participation in the Delta Regional Monitoring Program, the Discharger shall continue to report any individually conducted receiving water monitoring data in the Electronic Self-Monitoring Reports (eSMR) according to the Monitoring and Reporting Program. In addition, 1) with each submitted eSMR, the Discharger's eSMR cover letter shall state that the Discharger is participating in the Delta Regional Monitoring Program in lieu of conducting the individual receiving water monitoring program required by the permit, and 2) with each annual report, the Discharger shall attach a copy of the letter originally submitted to the Central Valley Water Board describing the monitoring location(s) and constituent combinations that will no longer be conducted individually.

1. Each Discharger, except the Calaveras County Water District, Copper Cove Wastewater Reclamation Facility and the Nevada County Sanitation District No. 1, Cascade Shores Wastewater Treatment Plant, shall monitor the receiving water at Monitoring Locations RSW-001 and RSW-002 (see also General Monitoring Provision J) for the constituents identified in the Notice of Applicability as follows. If there was no discharge to receiving water during the designated monitoring period, monitoring is not required during that period. If there is no upstream flow in the receiving water during the designated monitoring period, monitoring is not required at RSW-001 during that period. Whenever monitoring is not required, the Discharger shall state so in the monthly SMR. The Executive Officer may specify in the Notice of Applicability alternate sample types and/or monitoring frequencies than those listed in Table E-5 below.

Table E-5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type[1]	Sampling Frequency[1]		Required Analytical Test Method
			Major Discharger	Minor Discharger	
Conventional Pollutants					
pH	standard units	Grab[2,3]	1/Month	1/Quarter	4
Non-Conventional Pollutants					
Dissolved Oxygen	mg/L	Grab[2,3]	1/Month	1/Quarter	4
Electrical Conductivity @ 25°C	µmhos/cm	Grab[2,3]	5	5	4
Hardness, Total (as $CaCO_3$)	mg/L	Grab[3]	1/Quarter	1/Quarter	4
Temperature	°C	Grab[2,3]	1/Month	1/Quarter	4
Total Dissolved Solids	mg/L	Grab[3]	Not Required	Not Required	4
Turbidity	NTU	Grab[3]	Not Required	Not Required	4

1 Required sample type and frequency unless otherwise specified in the Notice of Applicability.
2 A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
3 A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
4 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
5 If monitoring is required, then the monitoring frequency shall be specified in the Notice of Applicability from the Executive Officer.

2. In conducting the receiving water sampling required by section VIII.A.1 above, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

   a. Floating or suspended matter;
   b. Discoloration;
   c. Bottom deposits;
   d. Aquatic life;
   e. Visible films, sheens, or coatings;
   f. Fungi, slimes, or objectionable growths; and
   g. Potential nuisance conditions.

   Notes on receiving water conditions shall be summarized in the monitoring report.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids

1. Monitoring Location BIO-001

a. As specified in the Notice of Applicability, Dischargers shall conduct biosolids monitoring as specified below. Dischargers with biosolids monitoring required under separate WDRs will not be subject to these specifications, but biosolids to meet pretreatment requirements under Reporting Requirement D.5 shall still apply.

b. A composite sample of sludge shall be collected at Monitoring Location BIO-001 in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, and tested as follows:

i. Dischargers with a flow <1.0 MGD shall monitor for the metals listed in Title 22 annually.

ii. Dischargers with flows between 1 MGD and 5 MGD shall monitor for the metals listed in Title 22 annually and for priority pollutants listed in 40 C.F.R. part 122, Appendix D, Tables II and III (excluding total phenols) once during the permit term.

iii. Dischargers with flows between 5 MGD and 10 MGD shall monitor for the metals listed in Title 22 quarterly and the priority pollutants listed in 40 C.F.R. part 122, Appendix D, Tables II and III (excluding total phenols) annually.

iv. Dischargers with flows greater than 10 MGD shall monitor for the priority pollutants listed in 40 C.F.R. part 122, Appendix D, Tables II and III (excluding total phenols) quarterly.

c. Biosolids monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical methods (EPA publication SW-846), as required in 40 C.F.R. section 503.8(b)(4). All results must be reported on a 100% dry weight basis. Records of all analyses must state on each page of the laboratory report whether the results are expressed in "100% dry weight" or "as is."

B. Ponds

1. Monitoring Location PND-001

a. For all basins or ponds specified in the Notice of Applicability, the Discharger shall keep a log regarding the use of the basin(s). In particular, the Discharger shall record the following when any type of wastewater is directed to the basin:

i. The date(s) when the wastewater is directed to the basin;

ii. The type(s) of wastewater (e.g., untreated due to plant upset, tertiary treated, etc.) directed to the basin;

iii. The total volume of wastewater directed to the basin (volume may be estimated);

iv. The duration of time wastewater is collected in the basin prior to redirection back to the other units of the wastewater treatment plant; and

v. The daily freeboard in the basin.

b. For unlined basins or ponds, the Discharger shall monitor equalization, storage, and treatment ponds at Monitoring Location PND-001 (see also General Monitoring Provision J) for the parameters in Table E-6 or as identified in the Notice of Applicability. When equalization or storage ponds hold wastewater for less than seven consecutive days, monitoring shall not be required. **If monitoring is not required, the Discharger shall so state in the SMR.** The Executive Officer may specify in the Notice of Applicability additional pond monitoring locations, alternate sample types, and/or alternate monitoring frequencies than those listed in Table E-6 below.

Table E-6. Pond Monitoring Requirements

Parameter	Units	Sample Type[3]	Sampling Frequency[3]	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/Month	[1, 2]
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week	[1, 2]
Odors	--	Grab	1/Month	--
pH	standard units	Grab	1/Month	[1, 2]

1 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

2 A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

3 Required sample type and frequency unless otherwise specified in the Notice of Applicability. A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

C. Municipal Water Supply

1. Monitoring Location SPL-001

a. Dischargers in the Tulare Lake Basin shall monitor the municipal water supply at Monitoring Location SPL-001 as follows. The Executive Officer may specify in the Notice of Applicability alternate sample types and/or monitoring frequency than that listed in Table E-7 below.

Table E-7. Municipal Water Supply Monitoring Requirements

Parameter	Units	Sample Type[3]	Sampling Frequency[3]	Required Analytical Test Method
Electrical Conductivity @ 25°C[1]	µmhos/cm	Grab[4]	1/Year	[2]

1 If the water supply is from more than one source electrical conductivity shall be reported as a weighted average and include copies of supporting calculations.

2 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

3 Required sample type and frequency unless otherwise specified in the Notice of Applicability.

4 A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

D. Filtration System

1. Monitoring Locations FIL-001 and FIL-002

a. Each Discharger of tertiary treated wastewater that meets the eligibility criteria in section I.B.4 of this General Order shall monitor the filtration system at Monitoring Location FIL-002 according to Table E-8, unless otherwise specified in the Notice of Applicability by the Executive Officer. The City of Atwater and the City of Merced shall also monitor at Monitoring Location FIL-001 when not using coagulation. The City of Atwater and the City of Merced shall indicate in their monthly self-monitoring report which days coagulation was used.

Table E-8. Filtration System Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Turbidity	NTU	Meter	Continuous[1,2]

1 For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results. For Dischargers that utilize UV disinfection, the Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected.

2 Report daily average and maximum turbidity.

E. Ultraviolet Light (UV) Disinfection System

1. Monitoring Location UVS-001

a. Each Discharger utilizing a UV disinfection system shall monitor the UV disinfection system at Monitoring Location UVS-001 as follows, unless otherwise specified in the Notice of Applicability by the Executive Officer:

Table E-9. UV Disinfection System Monitoring Requirements

Parameter	Units	Sample Type	Monitoring Location	Minimum Sampling Frequency
Flow	MGD	Meter	UVS-001[5]	Continuous[1]
Number of UV banks in operation[2]	Number	Observation	N/A	Continuous[1]
UV Transmittance[3]	Percent (%)	Meter	UVS-001	Continuous[1]
UV Dose[4]	mJ/cm^2	Calculated	N/A	Continuous[1]

1 For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results. The Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected.

2 Report daily minimum and daily maximum number of UV banks in operation.

3 Report daily minimum hourly average UV transmittance and daily average transmittance. The minimum hourly average transmittance shall consist of lowest average transmittance recorded over an hour of a day when flow is being discharged. If the system does not operate for an entire hour interval on a given day or if effluent flow is not discharged for an entire hour, the transmittance will be averaged based on the actual operation time when discharges are occurring.

4 Report daily minimum hourly average UV dose and daily average UV dose. The minimum hourly average dose shall consist of lowest hourly average dose provided in any channel that had at least one bank of lamps operating during the hour interval. For channels that did not operate for the entire hour interval or when effluent flow is not discharged for the entire hour, the dose will be averaged based on the actual operation time when discharges occurred.

5 If specified in the Notice of Applicability, flow monitoring at EFF-001 may be used to satisfy the UVS-001 flow monitoring requirement, provided flow was not diverted or added between UVS-001 and EFF-001.

F. Effluent and Receiving Water Characterization

The Discharger shall perform Effluent and Receiving Water Characterization as described in this section. If a Discharger is participating in the Delta Regional Monitoring Program as described in Attachment E, section VIII, the receiving water portion of this section is not required. However, the Discharger shall conduct, at minimum, one representative ambient

background characterization monitoring event for priority pollutant constituents[2] during the term of this General Order. Data from the Delta Regional Monitoring Program may be utilized to characterize the receiving water in the permit renewal. The Discharger may request that the Regional Monitoring Program perform sampling and laboratory analysis to address all or a portion of the monitoring under this Characterization Monitoring with the understanding that the Discharger will provide funding to the Regional Monitoring Program sufficient to reimburse all of the costs of this additional effort. Alternatively, the Discharger may conduct any site-specific receiving water monitoring deemed appropriate by the Discharger and submit that monitoring data with this Characterization Monitoring. In general, monitoring data from samples collected in the immediate vicinity of the discharge will be given greater weight in permitting decisions than receiving water monitoring data collected at greater distances from the discharge point.

1. **Monitoring Frequency.** Samples shall be collected from the effluent (Monitoring Location EFF-001) twice during the permit term, with all the sampling commencing not earlier than three years prior to, and concluding prior to six months before, the expiration of the this Order, and analyzed for the constituents listed in Table E-10, below. Samples shall be collected from the upstream receiving water (Monitoring Location RSW-001) once during the permit term, with all the sampling commencing not earlier than three years prior to, and concluding prior to six months before, the expiration of the this Order, and analyzed for the constituents listed in Table E-10, below. Delta Regional Monitoring Program participants may be relieved from characterization monitoring of the receiving water according to section VIII of the MRP and section VIII.D.1.b of the Fact Sheet. The Executive Officer may specify more frequent monitoring in the Notice of Applicability, including for those Dischargers requesting an exemption to the monitoring requirements for priority pollutants per Section 1.3, Step 8 of the SIP. The results of such monitoring shall be submitted to the Central Valley Water Board with the monthly SMR's. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.
2. **Concurrent Sampling.** Receiving water sampling shall be performed at approximately the same time and on the same date as one of the effluent sampling events.
3. **Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table E-10, below. A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

Table E-10. Effluent and Receiving Water Characterization Monitoring

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
2- Chloroethyl vinyl ether	µg/L	Grab	1
Acrolein	µg/L	Grab	2
Acrylonitrile	µg/L	Grab	2
Benzene	µg/L	Grab	0.5
Bromoform	µg/L	Grab	0.5
Carbon Tetrachloride	µg/L	Grab	0.5
Chlorobenzene	µg/L	Grab	0.5
Chloroethane	µg/L	Grab	0.5
Chloroform	µg/L	Grab	2
Chloromethane	µg/L	Grab	2
Dibromochloromethane	µg/L	Grab	0.5

[2] Appendix A to 40 C.F.R. part 423.

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
Dichlorobromomethane	µg/L	Grab	0.5
Dichloromethane	µg/L	Grab	2
Ethylbenzene	µg/L	Grab	2
Hexachlorobenzene	µg/L	Grab	1
Hexachlorobutadiene	µg/L	Grab	1
Hexachloroethane	µg/L	Grab	1
Methyl bromide (Bromomethane)	µg/L	Grab	1
Naphthalene	µg/L	Grab	10
3-Methyl-4-Chlorophenol	µg/L	Grab	--
Tetrachloroethylene	µg/L	Grab	0.5
Toluene	µg/L	Grab	2
trans-1,2-Dichloroethylene	µg/L	Grab	1
Trichloroethene	µg/L	Grab	2
Vinyl chloride	µg/L	Grab	0.5
Methyl-tert-butyl ether (MTBE)	µg/L	Grab	--
Trichlorofluoromethane[7]	µg/L	Grab	--
1,1,1-Trichloroethane	µg/L	Grab	0.5
1,1,2- Trichloroethane	µg/L	Grab	0.5
1,1-dichloroethane	µg/L	Grab	0.5
1,1-dichloroethylene	µg/L	Grab	0.5
1,2-dichloropropane	µg/L	Grab	0.5
1,3-dichloropropylene	µg/L	Grab	0.5
1,1,2,2-tetrachloroethane	µg/L	Grab	0.5
1,1,2-Trichloro-1,2,2-Trifluoroethane[7]	µg/L	Grab	0.5
1,2,4-trichlorobenzene	µg/L	Grab	1
1,2-dichloroethane	µg/L	Grab	0.5
1,2-dichlorobenzene	µg/L	Grab	0.5
1,3-dichlorobenzene	µg/L	Grab	0.5
1,4-dichlorobenzene	µg/L	Grab	0.5
Styrene[7]	µg/L	Grab	--
Xylenes[7]	µg/L	Grab	--
1,2-Benzanthracene	µg/L	Grab	5
1,2-Diphenylhydrazine	µg/L	Grab	1
2-Chlorophenol	µg/L	Grab	5
2,4-Dichlorophenol	µg/L	Grab	5
2,4-Dimethylphenol	µg/L	Grab	2
2,4-Dinitrophenol	µg/L	Grab	5
2,4-Dinitrotoluene	µg/L	Grab	5
2,4,6-Trichlorophenol	µg/L	Grab	10
2,6-Dinitrotoluene	µg/L	Grab	5
2-Nitrophenol	µg/L	Grab	10
2-Chloronaphthalene	µg/L	Grab	10
3,3'-Dichlorobenzidine	µg/L	Grab	5
3,4-Benzofluoranthene	µg/L	Grab	10
4-Chloro-3-methylphenol	µg/L	Grab	5
4,6-Dinitro-2-methylphenol	µg/L	Grab	10
4-Nitrophenol	µg/L	Grab	10
4-Bromophenyl phenyl ether	µg/L	Grab	10
4-Chlorophenyl phenyl ether	µg/L	Grab	5
Acenaphthene	µg/L	Grab	1

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
Acenaphthylene	µg/L	Grab	10
Anthracene	µg/L	Grab	10
Benzidine	µg/L	Grab	5
Benzo(a)pyrene (3,4-Benzopyrene)	µg/L	Grab	2
Benzo(g,h,i)perylene	µg/L	Grab	5
Benzo(k)fluoranthene	µg/L	Grab	2
Bis(2-chloroethoxy) methane	µg/L	Grab	5
Bis(2-chloroethyl) ether	µg/L	Grab	1
Bis(2-chloroisopropyl) ether	µg/L	Grab	10
Bis(2-ethylhexyl) phthalate[2]	µg/L	Grab	5
Butyl benzyl phthalate	µg/L	Grab	10
Chrysene	µg/L	Grab	5
Di-n-butylphthalate	µg/L	Grab	10
Di-n-octylphthalate	µg/L	Grab	10
Dibenzo(a,h)-anthracene	µg/L	Grab	0.1
Diethyl phthalate	µg/L	Grab	10
Dimethyl phthalate	µg/L	Grab	10
Fluoranthene	µg/L	Grab	10
Fluorene	µg/L	Grab	10
Hexachlorocyclopentadiene	µg/L	Grab	5
Indeno(1,2,3-c,d)pyrene	µg/L	Grab	0.05
Isophorone	µg/L	Grab	1
N-Nitrosodiphenylamine	µg/L	Grab	1
N-Nitrosodimethylamine	µg/L	Grab	5
N-Nitrosodi-n-propylamine	µg/L	Grab	5
Nitrobenzene	µg/L	Grab	10
Pentachlorophenol	µg/L	Grab	1
Phenanthrene	µg/L	Grab	5
Phenol	µg/L	Grab	1
Pyrene	µg/L	Grab	10
Aluminum	µg/L	24-hr Composite [3]	--
Antimony	µg/L	24-hr Composite [3]	5
Arsenic	µg/L	24-hr Composite [3]	10
Asbestos	MFL	24-hr Composite [3]	--
Barium[7]	µg/L	24-hr Composite [3]	--
Beryllium	µg/L	24-hr Composite [3]	2
Cadmium	µg/L	24-hr Composite [3]	[4]
Chromium (Total)	µg/L	24-hr Composite [3]	[4]
Chromium (VI)	µg/L	24-hr Composite [3]	10
Copper	µg/L	24-hr Composite [3]	[4]
Cyanide	µg/L	24-hr Composite [3]	5
Fluoride[7]	µg/L	24-hr Composite [3]	--
Iron	µg/L	24-hr Composite [3]	--
Lead	µg/L	24-hr Composite [3]	[4]
Mercury	µg/L	24-hr Composite [3]	0.5
Manganese	µg/L	24-hr Composite [3]	--
Molybdenum[7]	µg/L	24-hr Composite [3]	--
Nickel	µg/L	24-hr Composite [3]	[4]
Selenium	µg/L	24-hr Composite [3]	5
Silver	µg/L	24-hr Composite [3]	0.25

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
Thallium	µg/L	24-hr Composite [3]	1
Tributyltin[7]	µg/L	24-hr Composite [3]	--
Zinc	µg/L	24-hr Composite [3]	20
4,4'-DDD	µg/L	24-hr Composite [3]	0.05
4,4'-DDE	µg/L	24-hr Composite [3]	0.05
4,4'-DDT	µg/L	24-hr Composite [3]	0.01
alpha-Endosulfan	µg/L	24-hr Composite [3]	0.02
alpha-Hexachlorocyclohexane (BHC)	µg/L	24-hr Composite [3]	0.01
Alachlor[7]	µg/L	24-hr Composite [3]	--
Aldrin	µg/L	24-hr Composite [3]	0.005
beta-Endosulfan	µg/L	24-hr Composite [3]	0.01
beta-Hexachlorocyclohexane	µg/L	24-hr Composite [3]	0.005
Chlordane	µg/L	24-hr Composite [3]	0.1
delta-Hexachlorocyclohexane	µg/L	24-hr Composite [3]	0.005
Dieldrin	µg/L	24-hr Composite [3]	0.01
Endosulfan sulfate	µg/L	24-hr Composite [3]	0.01
Endrin	µg/L	24-hr Composite [3]	0.01
Endrin Aldehyde	µg/L	24-hr Composite [3]	0.01
Heptachlor	µg/L	24-hr Composite [3]	0.01
Heptachlor Epoxide	µg/L	24-hr Composite [3]	0.02
Lindane (gamma-Hexachlorocyclohexane)	µg/L	24-hr Composite [3]	0.5
PCB-1016	µg/L	24-hr Composite [3]	0.5
PCB-1221	µg/L	24-hr Composite [3]	0.5
PCB-1232	µg/L	24-hr Composite [3]	0.5
PCB-1242	µg/L	24-hr Composite [3]	0.5
PCB-1248	µg/L	24-hr Composite [3]	0.5
PCB-1254	µg/L	24-hr Composite [3]	0.5
PCB-1260	µg/L	24-hr Composite [3]	0.5
Toxaphene	µg/L	24-hr Composite [3]	--
Atrazine[7]	µg/L	24-hr Composite [3]	--
Bentazon[7]	µg/L	24-hr Composite [3]	--
Carbofuran[7]	µg/L	24-hr Composite [3]	--
2,4-D[7]	µg/L	24-hr Composite [3]	--
Dalapon[7]	µg/L	24-hr Composite [3]	--
1,2-Dibromo-3-chloropropane (DBCP)[7]	µg/L	24-hr Composite [3]	--
Di(2-ethylhexyl)adipate[7]	µg/L	24-hr Composite [3]	--
Dinoseb[7]	µg/L	24-hr Composite [3]	--
Diquat[7]	µg/L	24-hr Composite [3]	--
Endothal[7]	µg/L	24-hr Composite [3]	--
Ethylene Dibromide[7]	µg/L	24-hr Composite [3]	--
Methoxychlor[7]	µg/L	24-hr Composite [3]	--
Molinate (Ordram)[7]	µg/L	24-hr Composite [3]	--
Oxamyl[7]	µg/L	24-hr Composite [3]	--
Picloram[7]	µg/L	24-hr Composite [3]	--
Simazine (Princep)[7]	µg/L	24-hr Composite [3]	--
Thiobencarb[7]	µg/L	24-hr Composite [3]	--
2,3,7,8-TCDD (Dioxin)	µg/L	24-hr Composite [3]	--
2,4,5-TP (Silvex)[7]	µg/L	24-hr Composite [3]	--

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
Diazinon[7]	µg/L	24-hr Composite [3]	--
Chlorpyrifos[7]	µg/L	24-hr Composite [3]	--
Ammonia (as N) [5]	mg/L	24-hr Composite [3]	--
Boron	µg/L	24-hr Composite [3]	--
Chloride	mg/L	24-hr Composite [3]	--
Flow [5]	MGD	Meter	--
Hardness (as $CaCO_3$) [5]	mg/L	Grab	--
Foaming Agents (MBAS)	µg/L	24-hr Composite [3]	--
Mercury, Methyl	ng/L	Grab	--
Nitrate (as N)	mg/L	24-hr Composite [3]	--
Nitrite (as N)	mg/L	24-hr Composite [3]	--
pH [5]	Std Units	Grab	--
Phosphorus, Total (as P)	mg/L	24-hr Composite [3]	--
Specific conductance[6]	µmhos/cm	24-hr Composite [3]	--
Sulfate	mg/L	24-hr Composite [3]	--
Sulfide (as S)	mg/L	24-hr Composite [3]	--
Sulfite (as SO_3)	mg/L	24-hr Composite [3]	--
Temperature [5]	°C	Grab	--
Total Dissolved Solids (TDS) [5]	mg/L	24-hr Composite [3]	--

1 The reporting levels required in this table for priority pollutant constituents are established based on section 2.4.2 and Appendix 4 of the SIP.

2 In order to verify if bis (2-ethylhexyl) phthalate is truly present, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

3 24-hour flow proportional composite.

4 Applicable criteria and effluent limitations vary by hardness; therefore, the maximum reporting level will be specified in the Notice of Applicability.

5 The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table E-3, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.

6 Electrical conductivity.

7 Monitoring only required if the discharge is within the legal boundaries of the Sacramento-San Joaquin Delta, or as specified in the Notice of Applicability.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. Dischargers shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).

2. **Compliance Time Schedules.** For Dischargers subject to compliance time schedules in this General Order, the Discharger shall submit to the Central Valley Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the compliance time schedule.

3. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "*Emergency Planning and Community Right to Know Act*" of 1986.

4. Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if a Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

B. Self-Monitoring Reports

1. Dischargers shall electronically submit SMR's using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. Dischargers shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMR's are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Notice of Applicability effective date	All	Submit with monthly SMR
1/Day	Notice of Applicability effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	Notice of Applicability effective date	Sunday through Saturday	Submit with monthly SMR
2/Week	Notice of Applicability effective date	Sunday through Saturday	Submit with monthly SMR
3/Week	Notice of Applicability effective date	Sunday through Saturday	Submit with monthly SMR
1/Month	Notice of Applicability effective date	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/Quarter	Notice of Applicability effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February of following year
1/Year	Notice of Applicability effective date	1 January through 31 December	1 February of following year

4. **Reporting Protocols.** Dischargers shall report with each sample result the applicable RL and the current laboratory's Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

   Dischargers shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

   d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. **Multiple Sample Data.** When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

   a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

   b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

6. Dischargers shall submit SMRs in accordance with the following requirements:

   a. Each Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data are required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.